

REMARKS

Claims 6-9 are pending in the present application. Claim 6 was amended in this response. Claim 5 was canceled, without prejudice. No new matter has been introduced as a result of the amendments. Support for the amendment may be found, for example, on page 7, lines 3-11, and page 9, line 26 to page 10, line 3. Favorable reconsideration is respectfully requested.

Claim 5 was rejected under 35 U.S.C. §103(a) as being unpatentable over *Hamada et al.* (US Patent 6,552,609) in view of *Itoh* (EP 0700169 A2). Claim 6-9 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Hamada et al.* (US Patent 6,552,609) in view of *Itoh* (EP 0700169 A2) and further in view of Romano (Derwent 2002-342756). Applicant respectfully traverse these rejections.

In light of the cancellation of claim 5, Applicant submits the rejection has been rendered moot for the purposes of this response. Applicant reserves the right to refile the claim in a subsequent response or continuation.

Applicant submits that the prior art, alone or in combination, fails to teach or suggest a transceiver as recited in claim 6 wherein the second receiver provides a feedback branch using digital adaptive predistortion; and a switching element that creates an optional connection by connecting the amplifier output to the second receiver input whereby the second receiver input is disconnected from the antenna changeover switch. Under the claimed configuration, the second receiver operates as a feedback branch in the context of adaptive predistortion. In contrast to the prior art, the disclosed configuration does away with the requirement of having an additional measuring branch to measure the amplified signal, and instead utilizes existing hardware components and switches them in such a way that they have the same function as a measuring branch.

Hamada teaches a distortion compensating apparatus and method for compensating distortions of an amplifier that amplifies analog signals converted from digital input signals (col. 2, lines 52-57). As was conceded in the Office Action (last paragraph, page 3), Hamada does not disclose an antenna changeover switch, and a receiving antenna, having an input of the first receiver being connected to the antenna changeover switch, an input of the second receiver being connected to the antenna changeover switch, an output of the amplifier being connected to the

antenna changeover switch, with the antenna changeover switch being connected to the receiving antenna. Accordingly, the Office Action turned to Ito as purportedly teaching these features.

Applicant respectfully submits that Ito does not teach these features in light of the teaching in Hamada, and furthermore fails to teach the features provided in amended claim 6. In the transmitting/receiving circuit of Figure 1b, a transmitter amplifier 10, a receiver low noise amplifier 20, an antenna 30 are disclosed for transmitting and receiving a signal, where a changeover switch 40 switches the connection between (1) the transmitter amplifier 10 and the antenna 30 and (2) the connection between the receiver low noise amplifier 20 and the antenna 30, from one to the other (col. 13, lines 24-31). A receiver matching circuit 60A matches the input impedance of the receiver low noise amplifier 20 with the output impedance of the transmitter amplifier 10, while an antenna side matching circuit 70A matches the input impedance of the receiver low noise amplifier 20, which is matched with the output impedance of the transmitter amplifier 10 by the receiver matching circuit 60A (col. 13, lines 33-40). Thus, the changeover switch of Ito does not perform any digital adaptive predistortion, but instead performs impedance matching to match the output impedance of the transmitter amplifier with the optimal characteristic impedance of the changeover switch, and the receiver matching circuit has a function merely to match the input impedance of the receiver amplifier with the optimal characteristic impedance of the changeover switch (col. 8, lines 7-19). This has nothing to do with the receivers recited in the present claims, and further fails to take into account the digital converters that are also part of the claims. Moreover, the reference is wholly silent regarding a second receiver providing a feedback branch using digital adaptive predistortion.

Moreover, there is no teaching, suggestion or motivation for one having ordinary skill in the art to combine Hamada and Ito in the manner suggested in the office action. Hamada provides a distortion compensating apparatus for compensating distortions of an amplifier that amplifies analog signals converted from digital input signals. The changeover switch in Ito however, has absolutely nothing to do with digital conversion - the disclosure clearly teaches that the radio communication is already received in a digital format (col. 1, lines 12-25; 45-47). Moreover, the changeover switch of Ito has no application within the disclosure of Hamada, and is in a non-analogous art. For at least these reasons, Applicant submits the rejection under 35 U.S.C. §103 is improper and should be withdrawn.

Applicants respectfully request that a timely Notice of Allowance be issued in this case. If any additional fees are due in connection with this application as a whole, the Examiner is authorized to deduct such fees from deposit account no. 02-1818. If such a deduction is made, please indicate the attorney docket no. (0112740-965) on the account statement.

Respectfully submitted,

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